Spring 2005

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Great Plains Research 15 (Spring 2005):69-100

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ABSTRACT—The purpose of this study was to examine the local socioeconomic impacts of new economic development initiatives in North Dakota's rural (nonmetropolitan) communities. The analysis utilized interview, survey, and secondary data from four communities with recently developed agricultural processing plants, three with manufacturing and/or exported services facilities, and two control communities (i.e., towns that had not experienced the advent of a major new employer during the 1990s). Information from the two groups of development communities and the control communities is compared and contrasted to discern similarities and differences in the effects of the different types of development initiatives and to develop a set of general principles and recommended actions for community leaders to follow when planning for a new employer.

Key Words: rural development, community impacts, North Dakota, manufacturing

Introduction

Over the past several decades, production agriculture has become less important as a source of jobs and income for rural areas of the United States. The effects of farm consolidation have been particularly challenging for rural communities in areas like the Great Plains, where agriculture has traditionally been the major component of the economic base (Rathge and Highman 1998; Rowley 1998). Rural communities in agriculturally dependent areas of the Great Plains have been hard hit by the farm crisis of the 1980s and subsequent farm consolidation (Albrecht et al. 1988; Murdock and Leistritz 1988; McGranahan, 1998).

Given the trends of declining farm numbers and employment and dwindling rural population, rural economic development and diversification have been a focus of major policy initiatives in North Dakota and the Great Plains for many years. During the economically challenging 1980s, North Dakota policymakers sought additional ways to stimulate state and local economies, with emphasis on measures that encouraged communities to help themselves through mobilizing local resources. In 1987 the North Dakota legislature enabled home rule cities to levy local option sales taxes, up to a maximum of 1%, for the purposes of economic development, infrastructure improvements, property tax relief, and other community uses. Other measures enacted by the legislature during the 1980s enabled local governments to levy property taxes to support a Jobs Development Authority and provided for the possibility of state and/or local tax incentives or abatements for new or expanding firms (Leistritz and Bangsund 1998).

During the 1990s some North Dakota communities found success in their economic development efforts. Over the decade, the manufacturing sector (including agricultural processing and other manufacturing) grew by 46%; during the same period, the services sector grew by 44%, with about one-third of the new jobs representing exported services (i.e., telemarketing, customer support, reservation centers, and similar activities serving markets outside the state) (Coon and Leistritz 2001). While much of this growth occurred in North Dakota's metropolitan counties, a number of rural communities were sites of new firms or major expansions of existing enterprises.

Industrial expansion in rural areas has not been without its problems. For example, the expansion of the food processing industry in rural areas of the Midwest has led to a number of community concerns (Grey 1998; Broadway 2000). Some host communities have found that the new plants offered more jobs than the local labor supply could fill and/or at wages

lower than local workers would accept. In-migrants filled many of the jobs, changing the age and racial/ethnic composition of some towns, and the influx of newcomers was perceived to lead to social disruption in some communities. On the other hand, studies of impacts associated with new manufacturing and exported services firms, as well as waste disposal facilities, in the Great Plains have not found that such economic development initiatives triggered substantial in-migration. Rather, job opportunities and enhanced incomes for area residents have been cited as local benefits (Murdock et al. 1999; Gilson et al. 2001).

The purpose of this study is to examine the local socioeconomic impacts of new economic development initiatives in North Dakota's rural (nonmetropolitan) communities. This paper is the second to present findings from this project; an earlier report (Leistritz and Sell 2001) analyzed the effects of four new agricultural processing plants on their host communities. This paper examines the effects of manufacturing and/or exported services facilities in three additional communities and presents comparison data drawn from two control communities (i.e., towns that had not experienced the advent of a major new employer during the 1990s). The information from the two groups of development communities (i.e., agricultural processing versus manufacturing and exported services) and the control communities is compared and contrasted to discern similarities and differences in the effects of the different types of development initiatives and to develop a set of general principles and recommended actions for community leaders to follow when planning for a new employer.

Methods

The agricultural processing projects studied met the following criteria: (1) sited in rural counties, (2) developed during the 1990s, and (3) employed at least 40 workers. The communities with other types of economic development initiatives were rural communities where a new nonagricultural employer or an expansion of an existing facility had created at least 40 new jobs during the 1990s. The two control communities met the following criteria: (1) located in rural counties, (2) had not experienced a new nonagricultural employer or expansion with more than 20 new jobs since 1990, and (3) were characterized by economic and demographic trends prior to 1990 that were similar to those of the development communities (Isserman and Merrifield 1982). The study communities and counties are shown in Figure 1 while the new or expanded employers are identified in Table 1.

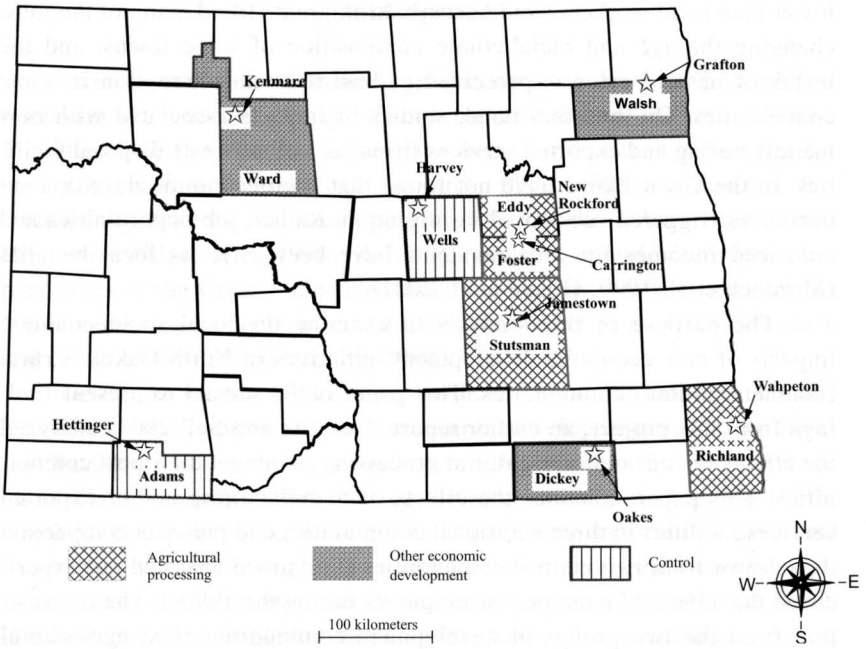

Figure 1. Study communities and counties in North Dakota.

In each of the study communities, the authors conducted in-depth interviews with a cross-section of community leaders, with the aim of gaining an understanding of the community (e.g., its population, economic base, etc.), of project development effects, of other socioeconomic changes that might have either exacerbated or offset the project's effects, and of the community's response to the situation. Persons selected for interviews were identified based on their elected or appointed governmental positions (e.g., mayor, county commissioner, economic development director) and roles in business, community, and educational organizations. Other community leaders were identified using a snowball technique (i.e., leaders interviewed were asked to identify others who would be knowledgeable about the issues discussed). The leaders selected on the basis of their positions constituted 90% or more of persons interviewed in each community. Representatives of each of the development projects also were interviewed.

The interviews took place at a location of the respondent's choosing, generally his/her office or place of business. An interview guide (list is topics to be addressed) was used to direct the discussion, but respondents

TABLE 1
NEW OR EXPANDED EMPLOYERS IN NORTH DAKOTA STUDY COMMUNITIES

Community / Employer	Employer type*	Date started	Number of employees 1995	2000	2002
Grafton					
Marvin Windows	M	1996	0	300	509
Kenmare					
Creative Industries	M	1969	10	12	18
Midwest Telemarketing	ES	1998	0	40	65
Commercial Group West	M	2000	0	5	5
Oakes					
Omniquip/Textron	M	1972	18	120	90
Performance Centers	ES	1999	0	100	65
Carrington					
Dakota Growers Pasta	AP	1993	200	275	280
Jamestown					
Aviko/Cavendish Farms	AP	1995	160	260	250
New Rockford					
North American Bison	AP	1994	20	50	81
Wahpeton					
ProGold	AP	1996	0	120	150

*M = manufacturing, ES = exported services, AP = agricultural processing.

were encouraged to expand on topics corresponding to their expertise or responsibility (e.g., education, law enforcement). Interviews averaged 45 minutes, ranging from 20 to 60 minutes. The number of interviews conducted in each community ranged from 10 to 17, with 12 to 15 being typical. All interviews were conducted by the authors, with one author personally conducting about 75%. The other interviewers taped their interviews, and the authors met frequently, both during and after the field trips, to compare observations and review interview notes.

Subsequently, a short survey was completed by a random sample of residents in each community. The survey was created for this study, but it followed the general format of the survey used by Murdock et al. (1999) in

their study of several communities affected by hazardous waste facilities and other types of economic development projects. The initial survey was pretested with a sample of rural community residents and leaders and revised as needed to enhance clarity of communication. The survey was administered using a drop-off and pick-up procedure (Steele et al. 2001) and focused on the residents' satisfaction with their community and the effects of the new employer on the community. (For the control communities, the questionnaire was modified somewhat, and some questions were phrased to address recent changes in the community, rather than the effects of a specific project or employer.) The resident survey resulted in 944 usable responses for a response rate of 86%. Data collection in the agricultural development communities occurred in 1999, while interviews and surveys in the other development and control communities were completed during 2002.

Description of Study Communities

The site communities represent a cross-section of nonmetropolitan trade centers scattered across North Dakota. With populations in 2000 ranging from 15,527 (Jamestown) to 1,081 (Kenmare), these towns have traditionally served as trade centers for areas whose primary industry is agriculture. Agriculture accounted for more than 40% of total sales for final demand (exports) from six of the nine counties in 2000 (Table 2). Farm and ranch employment (including proprietors) also made up more than 10% of total employment in seven of the nine counties in 2000. All nine counties lost population during the 1980s, with the declines ranging from 17% (Eddy County) to less than 1% (Ward County).

The site communities differ substantially in population, retail trade volume, and the range of services they provide (Table 3). Three of the cities (Grafton, Jamestown, and Wahpeton) are classified as complete shopping centers, three are partial shopping centers (Carrington, Harvey, and Hettinger), two are full convenience centers (Kenmare and Oakes), and one is a minimum convenience center (New Rockford) (Coon and Leistritz 2003). These classifications reflect the range of goods and services provided by each community. All of the site communities lost population during the 1980s, with the decreases ranging from 16.6% (Kenmare) to 3.5% (Wahpeton) (Table 3). During the 1990s, population continued to decline in all communities except Oakes, which grew by 11.5%. However, in the development communities the population decreases of the 1990s were always less than those occurring during the 1980s. In the two control

TABLE 2
SELECTED DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF STUDY COUNTIES, 1970-2000

	Nonagricultural development			Control		Agricultural processing			
	Dickey	Walsh	Ward	Adams	Wells	Eddy	Foster	Richland	Stutsman
Population:									
1970	6,976	16,251	58,560	3,832	7,847	4,103	4,832	18,089	23,550
1980	7,207	15,371	58,392	3,584	6,979	3,554	4,611	19,207	24,154
1990	6,107	13,840	57,921	3,174	5,864	2,951	3,983	18,148	22,241
2000	5,757	12,389	58,795	2,593	5,102	2,757	3,759	17,998	21,908
Change in population (%)									
1970-1980	3.3	-5.4	-0.3	-6.5	-11.1	-13.4	-4.6	6.2	2.6
1980-1990	-15.3	-10.0	-0.8	-11.4	-16.0	-17.0	-13.6	-5.5	-7.9
1990-2000	-5.7	-10.5	1.5	-18.3	-13.0	-6.6	-5.6	-0.8	-1.5
Employment (2000):									
Total	2,857	5,834	26,102	1,217	2,159	1,221	1,803	8,741	11,003
Percentage of total:									
Agriculture	17.3	15.1	4.4	17.3	18.2	19.6	13.5	11.6	7.9
Manufacturing	8.6	9.4	2.8	2.3	2.9	9.5	13.1	16.1	11.4
Retail trade	11.1	10.1	15.1	12.2	11.2	7.9	13.3	9.9	11.1
Services	52.4	51.2	63.1	55.8	54.3	53.2	49.1	48.7	57.8
Other	10.7	14.2	14.6	12.3	13.4	9.8	10.9	13.7	11.7
Sales for final demand (2000):									
Total ($ million)	167.9	343.2	1,225.9	57.8	110.8	56.8	104.9	401.7	542.6
Percentage from agriculture	57.8	55.9	8.1	61.6	47.4	34.3	42.7	57.8	23.7

Sources: U.S. Census Bureau (1980, 1990, 2000) (population); Job Service North Dakota (2003) (employment); Coon and Leistritz (2003) (sales for final demand).

communities, however, the population losses of the 1990s were greater than those of the 1980s.

All nine of the study communities registered decreases in their inflation-adjusted taxable sales and purchases during the 1980s. During the 1990s four of the seven development communities recorded gains in taxable sales. Both of the control communities recorded further decreases in taxable sales, but the decreases were substantially less than those of the 1980s. Pull factors, which measure a community's actual sales compared to its potential (based on trade area population and residents' incomes), decreased for five of the seven development communities and for both control communities during the 1980s (Table 3). During the 1990s three of the development communities recorded growth in their pull factors, and one was unchanged, while the remainder decreased. The control communities were split; one registered an increase and the other a decrease in pull factors from 1990 to 2000. School enrollments decreased in five of the seven development communities and both control communities during the 1990s (Table 3).

Changes in key economic and demographic indicators for the three groups of communities are summarized in Table 4. All three groups of communities sustained population losses during the 1980s. During the 1990s the two groups of development communities had much smaller losses (2.1% for nonagricultural development communities and 2.8% for agricultural processing sites), whereas the average population loss for the control communities (14.5%) was actually greater than these communities had suffered during the 1980s. All three groups of communities sustained major reductions in taxable sales and purchases during the 1980s, but during the 1990s both groups of development communities registered modest gains in (inflation-adjusted) sales. The control communities experienced a further drop in sales during the 1990s, although the decrease was much less than they had sustained during the 1980s (9.5% vs. 37.3%). School enrollments declined in all three groups of communities during the 1990s, with the largest percentage decline occurring in the control communities (Table 4).

Local Effects of Economic Development Projects and Recent Changes

Community leaders in each of the study communities were interviewed regarding effects of the new employer on their area, other major economic changes that may have affected the area, the community's experience in responding to impacts, and their advice for other communities facing the prospect of similar projects in the future.

TABLE 3
POPULATION, ADJUSTED TAXABLE SALES, PULL FACTORS, AND SCHOOL ENROLLMENTS, FOR STUDY SITE COMMUNITIES, 1980, 1990, AND 2000

	Nonagricultural development			Control		Agricultural processing			
	Oakes	Grafton	Kenmare	Hettinger	Harvey	New Rockford	Carrington	Wahpeton	Jamestown
Population:									
1980	2,112	5,293	1,456	1,739	2,527	1,791	2,641	9,064	16,280
1990	1,775	4,840	1,214	1,574	2,263	1,604	2,267	8,751	15,571
2000	1,979	4,515	1,081	1,307	1,989	1,463	2,263	8,586	15,527
Change in population (%)									
1980-1990	-16.0	-8.6	-16.6	-9.5	-10.5	-10.4	-14.2	-3.5	-4.4
1990-2000	11.5	-6.7	-11.0	-17.0	-12.1	-8.8	-0.2	-1.9	-0.3
Adjusted taxable sales (000S):									
2000	15,083	49,813	15,000	12,165	20,534	6,746	31,495	76,715	163,706
Change in adjusted taxable sales (%)									
1980-1990	-44.3	-19.8	-58.4	-33.2	-41.4	-63.7	-36.8	-6.5	-22.6
1990-2000	-7.4	-8.9	42.3	-14.9	-4.2	-1.2	14.6	3.1	10.8
Pull factors:									
1980	1.18	0.90	0.74	0.84	0.79	0.88	0.91	0.79	0.87
1990	0.74	0.95	0.49	0.80	0.49	0.33	0.74	0.82	0.77
2000	0.63	0.81	0.70	0.71	0.54	0.39	0.83	0.66	0.77
School enrollment:									
2000	423	929	206	282	382	274	554	3,224	3,800
Change in school enrollment (%):									
1990-2000	9.0	-7.8	-9.2	-9.6	-8.6	-29.9	13.0	-6.5	-5.5

Sources: U.S. Census Bureau (1980, 1990, 2000) (population); North Dakota State Tax Department (1981-2001) (taxable sales); North Dakota Department of Public Instruction (1991-2001) (school enrollments); Coon and Leistritz (2003) (pull factors).

TABLE 4
CHANGES IN DEMOGRAPHIC AND ECONOMIC INDICATORS FOR THREE COMMUNITY GROUPS, 1980-2000

Item	Community group Agricultural development	Nonagricultural development	Control
	Percentage change		
Population:			
1980 - 1990	-8.1	-13.7	-10.0
1990 - 2000	-2.8	-2.1	-14.5
Taxable sales and purchases:			
1980 - 1990	-32.4	-40.8	-37.3
1990 - 2000	6.8	8.7	-9.5
School enrollment:			
1990 - 2000	-7.2	-2.7	-9.1

Nonagricultural Development Communities

Grafton. When asked about recent changes affecting their community, Grafton leaders almost always referred to the town's continuing loss of population. Current population is estimated to be 4,300 to 4,500 compared to 6,000 in the early 1970s. A number of factors contributed to the population decline, including changes in the area's agriculture and downsizing of the State Developmental Center. During the period 1989-95 the Developmental Center was downsized from 800 to 150 residents and staffing dropped from 1,000 to 400(Leistritz and Root 1999). A declining and aging population has led to declining school enrollments. Further, the local retail sector has been declining for the past 20 years. Competition from businesses in Grand Forks, only 40 minutes away, has affected nearly all businesses in Grafton.

The community had been attempting to attract new employers for the past 25 years, but these efforts recently have become better organized and more successful. Late in the 1980s Walsh County formed a Jobs Development Authority funded by a countywide mill levy, and the city started a local option sales tax (1%). These have been the major resources for economic development locally. Development efforts in the late 1980s and early 1990s were aimed at finding replacement jobs for those being lost at the Develop-

mental Center. The major success for local developers was the announcement (in the fall of 1996) that Marvin Windows, headquartered in Warroad, MN, would be locating a factory in Grafton. An incentive package (including per worker "subsidy payments," a 20-year phased tax abatement, an industrial park with a speculative building already in place, and a low-interest loan) was a factor in the final decision between Grafton and other possible sites.

The Marvin Windows plant employed 509 workers at the time interviews were conducted (spring of 2002). About 67% of the workers were women, and 52% lived in the Grafton zip code area. The starting wage was $7.75 per hour, with an average wage of $10.63, and a well-regarded benefit package that included health insurance, a 401k retirement plan, and profit sharing. The company has been building up to its present work force by adding roughly 100 new positions each year (since 1997).

Marvin Windows' presence appears to have stabilized the local economy, rather than facilitating an influx of workers and their families. The plant has provided job opportunities for people getting out of farming, for those farm households needing an off-farm income (or second income), and for workers commuting from surrounding communities. While the local retail sector continues to struggle, several new businesses were started about the time Marvin Windows announced its intention to locate a facility in Grafton. Some of these have succeeded and remain open (a motel, gas station/convenience store, and a branch bank), but others have not (craft store, gift and variety shop). Cafes and motels seem to benefit from the presence of Marvin, and a new pawnshop offers "payday loans." Overall, retail sales rose slightly soon after the Marvin Windows announcement but have since declined somewhat.

Housing demand has been moderately affected by the growth of the Marvin Windows facility, according to local leaders. Housing values increased soon after the announcement and have been stable since. (As a result, the city has adjusted assessed values upward.) While a number of apartment units were built during the 1990s, including 49 units that were created by remodeling two of the redundant Developmental Center buildings, none of the apartment complexes was built primarily in anticipation of Marvin worker-related demand. While there are some vacancies and homes for sale today, most leaders believe that vacancies would be greater without Marvin Windows.

The failure of substantial numbers of Marvin workers to relocate to Grafton has been a disappointment to some local leaders. While housing appears to be available in Grafton, commuting workers appear to have

lower-cost housing (farmsteads, houses in smaller towns) in their current locations and have little incentive to move. Because Marvin has provided employment largely for Grafton residents and area commuters, businesses and service providers have not experienced the effects (positive and negative) often associated with an influx of workers and families.

Employment opportunities and growth in personal income were identified as positive effects of Marvin Windows. Marvin jobs have enabled some displaced farm families to remain in the area, and some local workers found Marvin jobs an attractive alternative to their previous employment. There has been some concern by other local employers about competition for labor, and the entry-level wage rates have likely increased for some of these entities (e.g., the school system, nursing home, some retailers).

Local leaders indicated that most services have been affected very little by the Marvin facility and its growth. Police complaints and citations and social service caseloads seem to track very close to statewide trends, with no discernible effect from Marvin Windows. While some local leaders reported that day care "is always an issue," two daycare facilities opened about the time the plant opened, so they were uncertain whether day care is harder or easier to arrange now. While the Marvin plant works shifts (as does the Developmental Center), there is no licensed daycare provider in Grafton who accommodates shift hours.

Increased real estate values have affected public revenues while the incentives provided to Marvin represent a major public expenditure. Assessed values have increased since Marvin has been in Grafton. In addition, there has been greater interest in remodeling homes and refurbishing rental units in recent years.

The incentive package represented a major commitment of community resources over a 20-year period. Key components were (1) a subsidized loan through the Bank of North Dakota, with the community contributing funds to "buy down" the interest rate, (2) a property tax abatement with tax on the land only for the first five years and the plant being phased onto the tax rolls over the next 15 years, and (3) annual job-subsidy payments of $1,000 per worker (with a maximum of $500,000 per year) for 20 years. The job-subsidy payments and interest buy-down are financed primarily from the Grafton Growth Fund (based on local sales tax revenue), but the nearby city of Park River and the (adjacent) Pembina County Jobs Development Authority also contribute.

The community leaders believed that residents generally perceived the growth of Marvin Windows as a positive influence for the community. Major benefits are jobs (with a total payroll of $10 million per year), which

represent opportunities for local people and businesses. Marvin Windows has helped Grafton retain its population and diversified the local economy. However, not all residents view the plant positively. Some area residents believe that Marvin has received inappropriate tax breaks and that the jobs it offers are relatively low wage. Further, some are concerned that funds derived from local sales taxes are being used to "subsidize" an established and successful firm. Overall, the leaders unanimously agreed that Marvin Windows has had a positive effect on Grafton. They believe the company has helped to stabilize the local economy and retain workers, giving the community a more optimistic future.

Kenmare. Kenmare has experienced the population and retail sales declines common across rural North Dakota. Local leaders emphasized that the local economy needs to diversify and reduce dependence on the agricultural and petroleum sectors. Like many other North Dakota communities, Kenmare has a 1% local sales tax that funds the Kenmare Community Development Corporation. Of the sales tax revenue, 75% is earmarked for economic development.

Recently, the town has benefited from the expansion of two major employers, Midwest Telemarketing Inc. (MTI) and Creative Industries (truck trunks manufacturer), and the addition of Commercial Group West (prefabricated hotel manufacturer). Creative Industries, originally a manufacturer of campers and motor homes, was the first project completed by the Kenmare Development Corporation (in 1969). Creative Industries has since expanded its sales line into other products (pickup truck accessories) and employs 15-20 workers (depending on demand), with an average wage of $10.25 per hour. Kenmare's second major employer, MTI, has been in Kenmare since 1998 and recently expanded its facility and work force. This firm does mainly outbound calling (potentially to anywhere in the United States), selling a variety of goods and services, providing an average wage of $9.00 per hour plus benefits. Kenmare's newest employer, Commercial Group West, manufactures prefab motel rooms, but also has made bunkhouses for firefighters, schoolrooms, and facilities for daycare centers. The firm employs five full-time workers.

Local leaders cited job opportunities as one of the key benefits of the recent business startups and expansions. Most jobs have been filled by local workers, including farmers' spouses seeking a second income because of the depressed farm economy. Residents' incomes have likely been bolstered, although some leaders felt this effect was minimal because of the low pay

scales. Competition for workers may have led to some wage increases among existing local employers, but this effect was considered minor.

The expanded job opportunities have served more to stabilize the local population than to stimulate an influx of workers and families. As a result, effects on the local retail and service sector have been minimal. While school enrollments have continued to decline, the local housing market has stabilized, with only a few vacant housing units in town. Local real estate values have strengthened or at least stabilized as a result of recent development, and the local tax base has increased about 10% per year.

Overall, community leaders and most residents view the recent economic changes as positive. The new and expanded businesses are providing employment, which prompted a few individuals to relocate to Kenmare. Population retention means fewer vacant houses, stable school environments, and churches that are still viable. The development corporation has not requested any funding, other than the city sales tax. The sales tax retains strong local support, as demonstrated in 1998 when 90% of voters supported reauthorization of the 1% sales tax.

Oakes. Oakes, like most nonmetropolitan communities in North Dakota, has focused on attracting new primary sector (basic sector) businesses. Those efforts are coordinated by Oakes Enhancement, Inc. (OEI), the local economic development entity. Like many economic development corporations, OEI is funded primarily by a local sales tax (OEI receives one-half of the 1% tax). Three major employers greatly affect the economy of Oakes and the surrounding area: Omniquip/Textron (formerly Lull Mfg.), Performance Centers (telemarketing), and Melroe/Bobcat (in the nearby town of Gwinner).

The Lull Mfg. plant was a major accomplishment for the OEI. The plant began operation is 1972 as an offshoot of the Melroe/Bobcat operation, but in 1995 the facility was purchased by Lull Industries (since acquired by Omniquip/Textron). OEI facilitated the sale by providing a building to Lull at virtually no cost, as well as offering a five-year tax abatement. In 1999 Lull expanded. The OEI arranged for industrial revenue bonds to finance the $4 million expansion of the building, and the company invested in $1.5 million of new equipment. The OEI also improved the access road for the industrial park where Lull was located. After the expansion, employment went from 18 workers to about 120. A slowdown in demand forced a cutback in 2001, but by mid-2002, demand had come back and Omniquip employed 90 workers. Of those workers, 30%-40% were from the local area and the rest commuted from as far as 50 miles. The work force is primarily male, and wages start around $9 per hour plus benefits.

Performance Centers also represents a success for OEI. Initially, OEI built a building in the industrial park for a firm starting a sewing factory. Unfortunately, the sewing operation only lasted about two weeks. Like the MTI organization in Kenmare, Performance Centers conducts outbound telemarketing and contracts almost exclusively with clients located outside North Dakota. The firm was recruited to fill the vacant building, began operating in February 1999, and has had more than 100 workers during peak periods. The company had some layoffs during the summer of 2001, but by May of 2002, it was reported to employ 65 workers and to have an annual payroll of $1 million. About 40% of these workers commute from distances within 50 miles of Oakes. Approximately 75% of the employees are female.

Local residents view employment opportunities as the major benefit of the community's new or expanding employers. Job opportunities bring people to town to work and in some cases attract new residents, and help to stabilize the population. Oakes grew by 204 persons, or 11.5%, from 1990 to 2000. Local population growth strengthened the real estate market and helped to maintain Oakes's retail sector. While local businesses still struggle to compete with the stores in major trade centers, there are few vacant buildings on Main Street. Local leaders reported that housing values are strong, and local residents are generally optimistic about the future.

Local leaders identified several negative impacts associated with recent business development efforts, specifically (1) competition for labor, (2) tight housing market, and (3) concerns about taxes. Some local employers (especially retailers) feel challenged in trying to match the wage and benefit packages offered by new employers (although higher wages are seen as a positive impact from the workers' perspective). Likewise, housing prices and rents are noticeably higher than in nearby communities, and some residents complain that their real estate taxes are higher than for comparable properties in nearby towns. Others are concerned that sales-tax dollars are being used to subsidize companies that will compete for local labor, or companies that will not be successful in the long term (hence, the assistance is wasted). Local leaders reported many residents were highly critical of economic development efforts after the sewing factory's failure. However, those criticisms seem to have moderated in the recent past.

Control Communities

Harvey. All local leaders cited population decline and out-migration as recent significant trends in the community. (Harvey lost 12.1% of its population from 1990 to 2000.) The population decline was blamed for the erosion of the local retail sector. Changes in the farm economy were cited as

a major cause of population loss, as older farmers with 1,000 to 2,000 acres are retiring, and operators with 5,000 to 10,000 acres are absorbing the land. In addition, low commodity prices, adverse weather, and crop disease have made it difficult for young people to enter farming. Local leaders also cited land taken out of production as a result of the Conservation Reserve Program, as well as the government's acquisition of more than 30,000 acres for a reservoir, as factors influencing declining farm numbers and population. Each acre represents a loss of $120 in farm input sales annually, according to one leader.

The community has been making efforts to attract or develop businesses. The Harvey Jobs Development Authority (funded by a 1% local sales tax) and Harvey Area Economic Development, Inc., are the local development entities. Recent development efforts have experienced mixed success. A small specialty-meat processing plant opened a few years ago and now appears to be doing well. The city built a $1.3 million building, which the company is renting through a rent-to-buy program. Projects that did not work out were a food processor and a manufacturing firm that built trailers and failed after four years. Local leaders reported that failed economic development efforts have led to some pessimism regarding the feasibility of development efforts among local residents.

Recent economic and demographic trends were reported to have wide-ranging impacts on the community. Out-migration has affected school enrollments, and leaders who grew up in the area commented that only a handful of their high school classmates remain. Residents are concerned about the future of their community and how recent trends will impact the value of their property. Residents' opinions on development efforts are mixed; some are unsure about supporting future development projects because of past failures and mixed results. Local leaders report that some residents simply want to maintain the status quo and avoid any further deterioration.

Hettinger. Out-migration and population decline have been the norm for the past two decades. As a result of young people leaving the area, the population age distribution has become dramatically skewed, with many older people but few young people. School enrollments have fallen considerably in recent years, as have retail sales. While Hettinger still has a trade area that extends a considerable distance into South Dakota, the town has lost two of its three farm machinery dealers but has retained its auto dealership. The community has a large hospital, nursing home, and clinic with a total employment of 300 that draws people to the community from outlying

areas. The medical center, which has 14 physicians on staff and operates 8 satellite clinics, is viewed by local leaders as one of Hettinger's major strengths as the community seeks to attract new businesses and residents.

The Adams County Economic Development Corporation, the principal economic development organization in the county, appeared to have successfully attracted a new firm in June of 2001. An area manufacturing firm announced its plans to open a branch plant in Hettinger with the potential to employ 50 workers. Unfortunately, the company's markets were disrupted by the terrorist attacks of September 11, 2001 (it makes aircraft components for both military and civilian markets), and in the summer of 2002, the facility had only 8 employees.

While attracting new employers continues to be a high priority for the community, recent efforts have also focused on retaining key businesses and services. In the past five years, the town has acquired three major chain stores to replace closing businesses, and the effort to maintain key retail and service functions is viewed as critical to maintaining Hettinger's status as a trade center.

Recognizing the difficulty of attracting or developing a manufacturing facility in a location remote from major markets, some local leaders have identified tourism and/or businesses or services that cater to an aging population as development possibilities. The area's reputation for excellent upland bird (pheasant) hunting already attracts large numbers of out-of-state hunters, and leaders hope to build on this base. The community's excellent medical facilities could make it attractive to retirees, who would also find housing at a fraction of the cost of most urban areas.

Agricultural Processing Communities

In the four agricultural processing communities, interviews also were conducted with local leaders and key service providers. The information and observations obtained in each community are summarized in Leistritz and Sell (2001). The highlights from that study are summarized in the paragraphs that follow.

Improved job opportunities and enhanced incomes were generally seen as major positive effects from the new processing plants. Further, aside from some management and engineering positions, most of the plant jobs appeared to represent employment opportunities for area workers rather than in-migrants. Residents' incomes were enhanced both by the plants' jobs and payroll (which often represented second incomes for area households) and by increased incomes for area farmers. Because most of the

plants' jobs were taken by persons already living in the area, the new plants did not lead to substantial in-migration or major population growth in the host communities. Rather, a reoccurring comment by local leaders was that the plant in their community had stabilized the local economy and population.

The plants' effects on the infrastructure and service needs of their host communities varied. For the two smaller communities (New Rockford and Carrington), the processing plants were the major economic change that had affected the local area, whereas in Jamestown and Wahpeton, the agricultural processing plant was only one of several major employers that had been expanding in recent years. In these towns, it was sometimes difficult for informants to separate the effects of the agricultural processing plant from the effects of growth in manufacturing-sector employment generally. In all communities, the additional employment opportunities had resulted in an increased demand for housing, which initially led to increased occupancy of vacant units but also sometimes was perceived to result in a local housing shortage. The type of housing units that were generally believed to be in short supply were affordable housing (i.e., units that plant workers paid $9-$13 per hour can afford).

Day care was a service that was reported to be affected by plant development and/or manufacturing growth in each community. Two issues concerning day care were general affordability and the need for extended hours (to accommodate shift workers). The effects on other services were mixed. Streets and roads were affected to some extent, with three of the four site areas reporting expenditures to improve access roads to the plant. In addition, increased road use by trucks delivering products to the plants and/or by workers during shift changes was reported but not generally seen as a serious concern. Fire and police protection was not seen as an issue in most communities, although the large construction work force associated with the ProGold project led to some short-term policing issues.

Public expenditures and revenues were topics of interest for leaders of the agricultural processing communities. Each project had involved some commitments of public resources, generally associated with provision of a plant site and some services, and each plant had received an abatement of local property taxes.

Survey of Study Community Residents

To gain a better understanding of residents' views of recent changes in their communities, we conducted a random survey. Questionnaires (avail-

able from the authors) were distributed to residents of the nine study communities, using a drop-off and pick-up procedure.

Selected demographic characteristics of the community resident respondents are summarized in Table 5 for the three community groups. The age distributions of respondents in the two groups of development communities were similar, whereas the control communities had a higher percentage of older respondents (43.4% were over age 50 and 22.4% were 60 or over). The respondents in each community group were predominantly white. Most respondents were married, but the percentage who were widowed, divorced, or separated was substantially higher in the control communities (perhaps because of the higher percentage of older respondents in this group). Two-thirds or more of respondents in each group had some postsecondary education, but this percentage was lower for the control communities than for either of the development groups.

Selected economic characteristics of the resident respondents are also summarized in Table 5 for the three community groups. Most respondents were employed by someone else, ranging from 60% in control communities to 75% in nonagricultural development communities. The percentage who were self-employed ranged from 12% in nonagricultural development communities to 19% in the control communities. Those who were retired ranged from 9% in the agricultural development communities to 15% in the control communities. Household incomes covered a broad range; the percentage of households reporting incomes less than $25,000 ranged from 30% in the control communities to 14% in nonagricultural development communities. Conversely, those with incomes over $50,000 ranged from 31% in control communities to 55% in nonagricultural development communities. (The reader is reminded that the survey in the agricultural development communities asked for household income in 1998 whereas the surveys in the other two groups asked for income in 2001. Thus, the data for the agricultural development communities are not strictly comparable to those for the other groups.)

In both groups of development communities, almost all respondents knew where the major employer's plant or office was located—98% in agricultural development communities and 93% in nonagricultural development communities (Table 6). Roughly half the respondents had visited the plant or office, ranging from 44% in agricultural development communities to 59% in nonagricultural development communities. While relatively small percentages of respondents reported that they or a family member worked for the plant or office, most had been living in the community when the new or expanded employer was proposed. Less than 8% of respondents in agri-

TABLE 5
SELECTED SOCIOECONOMIC CHARACTERISTICS OF SURVEY RESPONDENTS, BY COMMUNITY GROUP

Item	Community group		
	Agricultural development (%)	Nonagricultural development (%)	Control (%)
Age:*			
< 30	22.4	15.9	13.2
30-39	25.4	23.0	16.6
40-49	26.2	31.5	26.8
50-59	13.6	18.5	21.0
60 or over	12.4	11.1	22.4
Race:			
White	97.4	95.1	98.5
Marital status:**			
Married (or living as married)	75.3	83.3	72.7
Widowed, divorced, or separated	10.7	7.8	16.1
Never married	14.0	8.9	11.2
Education:**			
High school or less	26.9	25.2	34.2
Some post-secondary	30.7	24.1	26.3
College graduate	42.4	50.7	39.5
Employment status:**			
Not employed	5.1	3.0	5.9
Retired	9.3	10.3	14.9
Employed by someone else	67.9	74.9	59.9
Self-employed	17.4	11.8	19.3
Household income, 1998/2001:*			
<$25,000	23.6	14.1	30.2
25,000 - 49,999	38.1	30.5	38.5
50,000 - 79,999	27.2	36.9	21.9
80,000 or more	11.1	18.5	9.4
N	469	270	205

* Significant at the 1 % level based on Chi Square test
** Significant at the 10 % level based on Chi Square test

TABLE 6
RESIDENTS' RELATIONSHIPS WITH NEW EMPLOYERS, BY COMMUNITY GROUP

Item	Community group Agricultural development (%)	Nonagriculture development (%)
Respondent knows where plant or office is located*	98.3	93.0
Respondent has visited plant*	44.0	58.9
Respondent works for plant*	3.0	9.7
Family member works for plant*	7.7	14.1
Respondent lived in community when plant was proposed**	1.8	74.6
Respondent owns or works for business that supplies the plant	17.5	14.1
Distance from residence to plant (in miles):*		
<1	7.8	30.0
1-5	63.7	52.7
6-10	13.7	7.3
>10	14.8	10.0

* Significant at the 1 % level based on Chi Square test
** Significant at the 10 % level based on Chi Square test

cultural development communities lived within 1 mile of the plant, compared to 30% in the nonagricultural development communities. However, more than 70% in both community groups lived within 5 miles of the facility.

Residents' opinions about the general effects of new or expanded employers were quite favorable. New economic development initiatives were viewed as economically beneficial to the community by 86.5% of residents in agricultural development communities and 91% in nonagricultural development communities. Almost 82% of respondents in agricultural development communities felt that a new agricultural processing plant encourages other industries to locate nearby, while 88% of those in nonagricultural development communities felt a new manufacturer or exported services firm has the same effect. Only 12% of nonagricultural development community residents and 16.5% of those in agricultural development communities believed a new facility would cause decreases in property values.

Of residents in the agricultural development communities, 31% agreed with the statement that a new agricultural processing plant would cause environmental contamination, whereas only 13% of nonagricultural development community residents felt such contamination was likely to result from a new manufacturing or exported services facility. Substantial majorities of respondents in each community felt that a new facility increases residents' sense of well-being and community pride: 59% in agricultural development communities and 83% in nonagricultural development communities (data not shown).

Community residents were asked to rate the effects that development of the new or expanded employer had on various aspects of their community (Table 7). Residents of both groups of development communities felt overwhelmingly that the effects of recent development on local job opportunities had been positive. Almost 88% of respondents in agricultural development communities and 90% in nonagricultural development communities rated effects on job opportunities as positive or very positive, compared to only 33% in control communities. Sixty-two percent of agricultural development community residents and 72% of those in nonagricultural development communities believed that residents' incomes were positively affected, compared to 29% in the control communities (Table 7). One-third or more of respondents in both groups of development communities felt that effects on schools, child care/day care, local public revenues, and social organizations had been positive. However, for some of these attributes, control community respondents were as likely to rate the effects of recent changes as positively as did those in development communities.

Respondents believed that the community aspects most negatively affected in the agricultural development communities were air quality, housing costs, and streets, roads, and highways (Table 7). Twenty-seven percent of respondents rated effects on air quality as negative, 24% viewed effects on housing costs as negative or very negative, and 23% perceived negative effects on streets, roads, and highways. The percentages for air quality and for streets, roads, and highways are much higher than the corresponding values for the nonagricultural development and control communities. For most other community attributes, the effects in the development communities were less frequently perceived as negative than were corresponding changes in the control communities. Exceptions to this pattern were seen once again in the agricultural development communities, where more respondents than in the control communities felt that water quality was negatively affected.

TABLE 7
RESIDENTS' ASSESSMENT OF POSITIVE EFFECTS OF RECENT DEVELOPMENT ON SELECTED COMMUNITY ATTRIBUTES, BY COMMUNITY GROUP

Item	Community group: Agricultural development	Nonagricultural development	Control
	Percentage who rated effects *positive* or *very positive*		
Job opportunities*	88.1	89.8	33.2
Residents' incomes*	61.7	72.1	29.0
Schools*	40.8	52.3	39.6
Quality of life*	36.2	52.1	59.8
Local public revenues*	38.1	54.8	35.6
Social organizations* (churches, civic groups, etc.)	33.3	48.6	60.3
Child care/Day care*	34.5	44.6	46.5
Housing costs	31.0	31.5	36.0
Family life*	27.0	47.9	55.3
Local public expenditures*	30.4	43.8	42.9
Streets, roads, and highways*	24.2	33.3	52.7
Fire protection*	24.0	32.8	56.1
Police protection*	18.7	25.7	34.2
Crime/Public safety*	11.5	18.2	35.0
Air quality*	7.8	14.6	51.7
Water quality*	7.8	12.7	60.4
	Percentage who rated effects *negative* or *very negative*		
Air quality*	27.3	2.7	3.3
Housing costs	23.6	16.6	19.7
Streets, roads, and highways*	23.2	8.3	12.8
Local public revenues*	17.9	10.4	25.9
Water quality*	14.4	3.2	4.3
Local public expenditures*	13.0	8.4	22.5
Crime/Public safety**	10.2	6.7	14.2

*Significant at the 1 % level based on Chi Square test
**Significant at the 10 % level based on Chi Square test

Most development community residents who expressed an opinion felt that both economic and social impacts of the new development initiatives had been positive (Table 8). Among the agricultural development community residents, 47.1% felt that economic benefits of the new plant exceeded costs to the community, while 12.8% disagreed and 40.1% selected the *do not know* response. Thus, of those who expressed an opinion, almost 79% indicated that economic benefits exceeded costs. Among the nonagricultural development community respondents, almost 81% of those expressing an opinion felt economic benefits exceeded costs. Finally, 72% of nonagricultural development community residents who expressed an opinion felt that social benefits of the recent developments exceeded costs. The corresponding figure for agricultural development communities was 68% (Table 8). If an election were held today, 66% of respondents in the agricultural development communities and 72% of those in nonagricultural development communities believed most people in their community would vote in favor of the new employer or facility. When asked if they would personally vote in favor, 72% of respondents in the agricultural development communities and 83% in the nonagricultural development communities responded affirmatively.

Implications

A goal of this study was to examine several recently developed agricultural processing plants, other manufacturing facilities, and exported services firms to determine how their actual outcomes compared with initial hopes. In addition, the experiences of North Dakota communities where new economic development initiatives have been developed can be compared with those of communities in other areas that also have experienced development or expansion of similar facilities. Finally, a major aim of the study was to examine the experiences of these North Dakota communities to determine what lessons might be learned and used by other communities contemplating similar developments in the future.

Outcomes Compared to Expectations

Concerning the actual outcomes and how these compared with expectations, improved job opportunities and enhanced incomes were generally seen as major positive effects of each of the new economic development initiatives (EDIs). Further, aside from some management and engineering

TABLE 8
RESIDENTS' ASSESSMENT OF COSTS AND BENEFITS OF NEW OR EXPANDED EMPLOYERS, BY COMMUNITY GROUP

Item	Community group	
	Agricultural development (%)	Nonagricultural development (%)
Economic benefits to community exceeded costs:		
Yes	47.1	50.4
No	12.8	11.8
Don't know	40.1	37.8
Social benefits to community exceeded costs:**		
Yes	34.0	41.6
No	16.2	16.0
Don't know	49.8	42.4
If an election were held today, most people would vote in favor of the new employer		
Somewhat or strongly agree**	65.5	71.5
If an election were held today, I would vote in favor of the new employer		
Somewhat or strongly agree*	72.1	82.5

*Significant at the 1 % level based on Chi Square test
**Significant at the 10 % level based on Chi Square test

positions, most of the EDI jobs appeared to represent employment opportunities for area workers rather than in-migrants. Residents' incomes were enhanced both by the EDIs' jobs and payrolls (which often represented second incomes for area households) and by increased incomes for area farmers (in the case of agricultural processing facilities). Because most of the EDI jobs were taken by persons already living in the area, the new employers did not lead to substantial in-migration or major population growth in the host communities. Rather, a reoccurring comment by local leaders was that the EDI in their community had stabilized the local economy and population. Comparison of population trends in the development and control communities supports the perception of local informants that the economic development initiatives served to stabilize local populations.

The EDIs' effects on the infrastructure and service needs of their host communities varied. In all communities, the additional employment opportunities had resulted in an increased demand for housing, which initially led to increased occupancy of vacant units but also sometimes was perceived to result in a local shortage of affordable housing.

Respondents in each community reported that daycare services were affected by economic development initiatives. However, some reported that additional daycare facilities had been developed, so it was not clear whether day care had become more or less readily available. Two issues concerning day care were general affordability and the need for extended hours. The affordability issue relates to the challenge of meeting federal and state requirements while keeping rates at levels that plant workers can afford. The need for extended hours was a special concern with respect to facilities that operate around the clock. However, two of the communities had attempted to offer day care for shift workers and determined that demand was insufficient to support the service.

The effects on other services were mixed. Streets and roads were affected to some extent, with three of the four agricultural processing sites and one of the other manufacturing sites reporting expenditures to improve access roads to the plant. In addition, increased road use by trucks delivering products to the plants and/or by workers during shift changes was reported in all of the agricultural processing communities but was generally not seen by local leaders as a serious concern. Roads and streets were not cited as major issues in communities with other manufacturing and/or exported services firms. Fire and police protection was not seen as an issue in most communities, although the large construction work force (peaking around 1,200) associated with the ProGold project led to some short-term policing issues. Schools were generally seen as having few effects, as the plants led to little in-migration. School-age children who came to the community stabilized local enrollments during a period characterized by a declining statewide school-age population. On the other hand, demands on social services had generally eased with the advent of plant-related job opportunities. In three of the four agricultural processing communities, caseloads were reported to be down substantially over the past few years, and leaders credited improved job opportunities for the change.

Public expenditures and revenues were topics of interest for both leaders and residents of the affected communities. Each project had involved some commitments of public resources, generally associated with provision of a plant site and some services, and each plant had received an abatement of local property taxes. The cost of providing services became a

major issue only in Jamestown, where the cost of an expanded wastewater treatment facility was greater than expected and the city and company disagreed about the appropriate cost sharing. In the other development communities, the resources committed were generally seen as appropriate in view of the new employer's contribution to the community.

The pros and cons of local tax abatements and other incentives were discussed in all the communities. A reoccurring theme was that these decisions should be made based on an understanding of both short- and long-term implications for local government budgets, as well as the broader implications of having the facility in the community. There was general agreement that local residents should be kept informed regarding the commitments being made to a project and the implications of those commitments.

Of all the effects of the agricultural processing plants, only air quality and water quality were more often rated as negative than positive by local residents. Objectionable odors were reported in connection with three of the four plants, although local leaders generally considered these to be minor issues. Water requirements were a predevelopment concern with respect to two of the plants, while wastewater treatment became a major issue with one. These issues appear to have been resolved, but the inherent nature of some types of agricultural processing suggests that air- and water-quality issues should be considered when such plants are proposed for development.

In the communities with other manufacturing and exported services facilities, the only service-area or community attribute identified as being negatively affected by one-sixth or more of respondents was housing costs. However, even for this attribute, the percentage of respondents who rated effects negatively was less than in the control communities.

Outcomes Compared to Other Studies

Recent literature regarding agricultural processing plants and other economic development initiatives in rural areas is dominated by accounts of the effects of the movement of meatpacking plants from urban to rural areas in the Great Plains (Broadway 2000). These studies have emphasized a variety of social problems, including housing shortages, increases in crime, and increased demands for social assistance and special services (Grey 1998; Broadway 2000; Dalla et al. 2002). Some of these issues are similar to those reported in connection with rapid population growth in rural energy

communities in the western states during the 1970s and early 1980s (Murdock and Leistritz 1979; Leistritz and Murdock 1981).

Studies of communities experiencing other types of economic development have been sparse in recent years. Gilson et al. (2001) examine the economic impact of a computer services center on a small city in Kansas and report that the community benefited from the new jobs and additional payroll that the new firm provided. Sell et al. (1998) and Murdock et al. (1999) report findings from a study of 15 communities in five states of the Great Plains and Rocky Mountains, which included communities where hazardous waste facilities, waste disposal facilities, and other types of economic development projects (e.g., manufacturing plants) had recently been instituted, and control communities that had not hosted any major new projects. They report that all three categories of development communities (i.e., waste-facility siting, waste-disposal operating, and nonwaste development) had experienced positive effects on employment and income, compared to the control communities (Sell et al. 1998). On the other hand, local population growth did not appear to be systematically affected by either waste facility or nonwaste development (Murdock et al. 1999). All types of development were felt by area residents to result in improvements in funding for local public schools, as well as increased resources for public services in general (Murdock et al. 1999). Residents of communities currently undergoing waste-facility siting were more likely to report substantial levels of community conflict than were their counterparts in the other community types. Communities with operating waste-disposal facilities or other development projects reported levels of conflict that were slightly lower than those in the control communities (Murdock et al. 1999).

When the impacts associated with recent economic development initiatives in North Dakota are compared to those reported in previous studies of meatpacking and energy communities, it is clear that the North Dakota communities did not experience either the levels of in-migration or the social problems reported in those studies. Although the employment requirements of the North Dakota plants were sometimes substantial in relation to the local labor pool (e.g., Dakota Growers' work force of 280 represents 15% of Foster County's pre-project employment, while Marvin Windows' 509 employees represent about 8.6% of the Walsh County work force), most of the jobs were filled by local workers. Those workers who did relocate to the host communities were reported to be easily assimilated. While a thorough analysis of the reasons behind the differences in community effects is beyond the scope of this study, these differences appear to be substantial.

The findings of this study are similar to those reported by studies of other types of economic development initiatives (e.g., waste facilities and manufacturing). In all cases, host communities have experienced economic benefits in the form of increased incomes and additional jobs while reporting minimal levels of in-migration and few social problems.

Lessons Learned

The community leaders interviewed in the course of this study were specifically asked about their advice for other communities that might face the prospect of a similar project. Their advice fell into four major categories.

Appropriateness of Project and Compatibility with Community. Leaders felt that the first consideration must be determining that the project is economically feasible. In that regard, it might be noted that all four of the agricultural processing projects had feasibility studies professionally prepared. The other development projects often were branch operations of established firms, which should have been in a position to evaluate the economic viability of the new venture. The leaders also emphasized the importance of determining if the project is a "good fit" for the community in terms of infrastructure and labor force. This means that the leaders must have a thorough understanding of local capabilities (e.g., a local labor survey may be helpful to determine if the labor force will be sufficient to meet the firm's needs). In general, the community should ask how the company fits into the community's long-term plan.

Infrastructure Planning and Financing. The leaders emphasized the importance of evaluating the costs of infrastructure improvements that might be required and, more generally, the short-term and long-term implications of the project and the incentive package that might be proposed. These issues need to be considered on a case-by-case basis. Also, in planning for infrastructure needs, the community should keep in mind that the effect of a project may be to offset decline in other sectors, thus stabilizing the community rather than resulting in substantial growth. In general, the projects studied resulted in relatively few demands on community infrastructure.

Anticipating Issues and Needs. Leaders felt that examining experiences of other communities that had been sites of similar projects might help identify issues or needs that are likely to arise. In the experience of the communities

in this study, the two issues that can be expected to arise with new employers are affordable housing and day care (especially for shift workers). In addition, for agricultural processing projects, environmental (e.g., air and water) quality questions appear likely to arise.

Development Approach and Attitude. Especially in the smaller towns, the leaders emphasized that attracting or developing a viable industry is a major challenge, and that the alternative would be to watch their community decline into oblivion. (One leader stated, "In my community we measure time as before-NP [new plant] and after-NP." Another commented, "If people ask me why our community hasn't experienced more growth in retail sales and population since the advent of [our plant], I tell them, 'Think about what things would be like without [the plant].'") Their advice was for rural communities to keep trying in their development efforts and to recognize that the number of failures in these endeavors will always exceed the number of successes. They also suggested that communities should take a more regional approach to development, as the benefits of projects like those studied are regional in nature. The leaders emphasized the importance of a hired economic development person to lend continuity to development efforts. They suggested that communities strive to leverage their local resources and avoid risking too much on a single venture. Finally, if a major investment of local resources is contemplated, leaders should assure themselves of the new firm's long-term potential.

Conclusions

Rural economic development and diversification have been a priority for state and local decision makers throughout North Dakota for more than two decades. These efforts have been based on the vision that increased employment in the agricultural processing, other manufacturing, and exported services sectors in rural areas of North Dakota would lead to a variety of positive effects for the areas where the new facilities were located. These local and regional benefits were believed to include new job opportunities and improved incomes for area residents, enhanced economic stability for communities that had often been almost totally dependent on agriculture, population stability and reduced out-migration, stabilization of local services, and an enhanced local tax base.

As rural communities throughout the Plains and Midwest continue to wrestle with business development issues, related research is needed for

federal, state, and community leaders and decision makers. This study lays the groundwork to conduct similar studies in rural areas throughout the United States. Also, the data collected from this study have created an opportunity to reevaluate these same communities in the future to determine longer-term impacts of specific development projects.

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